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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,179	12/31/2003	Ju-Sang Jung	27427.005.00-US	5541

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EXAMINER	
RAABE, CHRISTOPHER M	
ART UNIT	PAPER NUMBER
2879	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/748,179	JUNG, JU-SANG	
	Examiner	Art Unit	
	Christopher M. Raabe	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/31/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsuchida et al. (European Patent 1 061 548).

With regard to claim 1,

Tsuchida et al. disclose a color cathode ray tube comprising: a panel, said panel including an outer surface which is substantially flat and an inner surface on which a screen composed of red, green and blue phosphors is formed (paragraphs 1, 27).

The phrase "wherein a screen transmittance of the panel increases and then decreases along a line from a center portion to a peripheral portion of the panel" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 2,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein the screen transmittance of the panel satisfies the following condition; $STM_{HALF} \geq STM_C$, $STM_{HALF} \geq STM_E$, wherein STM_C is a screen transmittance at the center portion of the panel, STM_E is a screen transmittance at the peripheral portion, and

STM_{HALF} is a screen transmittance at a point positioned about 1/2 the distance between the center portion and the peripheral portion" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 3,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein the screen transmittance of the panel is maximized at a doming portion, and wherein the doming portion is a region extending along a major axis from 2/5 to 4/5 and extending along a minor axis from 1/8 to 7/8 on a basis of 1/2 of the surface of an effective surface portion of the panel in which the screen is formed" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 4,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein the screen transmittance in the center portion of the panel is 60% or lower" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 5,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein the screen transmittance of the panel is increases from the center portion of the panel to a long side portion of the panel along a major axis of the panel" does not

structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 6,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein, $0.94 \leq STM_V/STM_C \leq 1.16$, and $0.94 \leq STM_H/STM_C \leq 1.16$, wherein STM_C is a screen transmittance of the center of the panel, STM_V is a screen transmittance of a long side portion, and STM_H is a screen transmittance of a short side portion" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 7,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein: $1.00 \leq STM_{DO}/STM_C \leq 1.13$, wherein a doming portion is a region extending along a major axis from 2/5 to 4/5 and extending along a minor axis from 1/8 to 7/8 on a basis of 1/2 of the surface of an effective surface portion of the panel in which the screen is formed, STM_C is a screen transmittance of the center of the panel, and STM_{DO} is a screen transmittance of the doming portion" does not distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 8,

Tsuchida et al. disclose the cathode ray tube wherein, $1.05 \leq W_{PD}/W_{PC} \leq 1.25$, wherein the (should read "a" instead of "the" – lack of antecedent) doming portion is a region extending along a major axis from 2/5 to 4/5 and extending along a minor axis from 1/8 to 7/8 on a basis

of 1/2 of the surface of an effective surface portion of the panel in which the screen is formed, W_{PC} is a width of the phosphor at the center portion of the panel, and W_{PD} is a width of the phosphor at the doming portion of the panel (paragraph 20,46 and fig 4a).

With regard to claim 9,

Tsuchida et al. disclose the cathode ray tube wherein, $0.90 \leq W_{PV}/W_{PC} \leq 1.10$, wherein W_{PC} is a width of the phosphor at the center portion of the panel, and W_{PV} is a width of the phosphor at a long side portion of the panel (paragraph 20, and figs 4a,4b).

With regard to claim 10,

Tsuchida et al. disclose a color cathode ray tube comprising: a panel, said panel including an outer surface which is substantially flat and an inner surface on which a screen composed of red, green and blue phosphors and black layer (paragraphs 1, 27).

The phrase "wherein a screen transmittance of the panel satisfies the following conditions: $STM_{HALF} \geq STM_C$, and $STM_{HALF} \geq STM_H$; wherein STM_C is a screen transmittance at a center portion of the panel, STM_H is a screen transmittance at a short side portion of the panel, and STM_{HALF} is a screen transmittance at a point positioned about 1/2 of the distance between the center portion and the short side portion of the panel" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114).

With regard to claim 11,

Tsuchida et al. disclose the cathode ray tube.

The phrase "wherein a glass transmittance of the panel is 41-79%" does not structurally distinguish the claimed invention from the prior art, as is required of apparatus claims (MPEP 2114)

With regard to claim 12,

Tsuchida et al. disclose the cathode ray tube, wherein a screen pitch of the screen is increased from the center portion of the panel to a peripheral portion of the panel (paragraph 20, and figs 5a,5b).

With regard to claim 13,

Tsuchida et al. disclose the cathode ray tube, wherein a width of the phosphor of the screen increases from the center portion of the panel to a peripheral portion of the panel along a major axis of the panel (paragraph 20, and fig 4a).

With regard to claim 14,

Tsuchida et al. disclose the cathode ray tube, wherein: $1.4 \leq PH_E/PH_C \leq 1.7$, wherein PH_C is a screen pitch of the phosphor at the center portion of the panel and PH_E is a screen pitch of the phosphor at a peripheral portion of the panel (paragraph 20, and figs 5a,5b).

With regard to claim 15,

Tsuchida et al. disclose the cathode ray tube, wherein: $1.27 \leq W_{PD}/W_{PC} \leq 1.67$, wherein W_{PC} is a width of the phosphor at the center portion of the panel, and W_{PD} is a width of the phosphor at a corner portion of the panel (paragraph 20, and figs 4a,4b).

With regard to claim 16,

Tsuchida et al. disclose the cathode ray tube, wherein: $1.27 \leq W_{PH}/W_{PC} \leq 1.53$, wherein W_{PC} is a width of the phosphor at the center portion of the panel, and W_{PH} is a width of the phosphor at the short side portion of the panel (paragraph 20, and figure 4a).

With regard to claim 17,

Tsuchida et al. disclose the cathode ray tube, wherein a radius of curvature of the outer surface of the panel is 30,000 mm or longer (paragraph 57).

With regard to claim 18,

Tsuchida et al. disclose the cathode ray tube, wherein the inner surface of the panel has a radius of curvature in a range of about 1.2R to 8R where R is obtained by multiplying a diagonal length of an effective surface of the panel in which the phosphor screen is formed by 1.767 (paragraphs 34, 43 – using 10m for radius of curvature of outer surface, the wedge value of 13mm, and the diagonal line of 600mm to calculate the radius of curvature of the inner surface, a little over 1800mm).

With regard to claim 19,

Tsuchida et al. disclose the cathode ray tube, wherein a wedge ratio which is a ratio between a thickness of glass at the center of the panel and a thickness of glass at a peripheral portion of the panel is about 140% or higher (paragraph 34).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents 6441566, 4607188, US Pre-grant Publication 2002/0003396.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher M. Raabe whose telephone number is 571-272-8434. The examiner can normally be reached on m-f 7am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CR

ASHOK PATEL
PRIMARY EXAMINER